

## Transformation Of Human Rights Under The Influence Of Digitalization

*Transformação Dos Direitos Humanos Sob A Influência Da Digitalização*

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Fecha de recibido: 2020-11-30

Fecha de aceptado para publicación: 2021-02-01

Fecha de publicación: 2021-03-25





## Abstract

The article shows that, throughout the evolution of human civilization, it shows that the list and scope of rights and freedoms demanded by society change with each new stage of technical and, consequently, economic development. With the formation of a digital civilization, a new round in the development of the human rights institution can be expected. In the research content, the authors highlight the threats and risks to the institution of human rights from the digital transformation of society's normative values and foundations. It is shown that the shadow and hidden nature of the operation of algorithmic systems, based on the results from which socially and individually significant decisions are made, initiates a series of risks and threats to human rights and traditional freedoms and to transparency and openness that human activity in the digital age leads to a violation of the basic rights of privacy and freedom of choice. The article also highlights and considers two opposing trends in the impact of digitization on the institution of human rights: expanding the scope and list of rights, on the one hand, and massive violations of rights, and narrowing the real sphere of human opportunities, on the other.

**Keywords:** digitization, artificial intelligence, human rights, image recognition system, information security.

## Resumen

O artigo mostra que, ao longo da evolução da civilização humana, mostra que a lista e o alcance dos direitos e liberdades exigidos pela sociedade mudam a cada nova etapa do desenvolvimento técnico e, conseqüentemente, econômico. Com a formação de uma civilização digital, uma nova rodada no desenvolvimento da instituição de direitos humanos pode ser esperada. No conteúdo da pesquisa, os autores destacam as ameaças e riscos para a instituição de direitos humanos a partir da transformação digital dos valores e fundamentos normativos da sociedade. Mostra-se que a sombra e a natureza oculta do funcionamento dos sistemas algorítmicos, com base nos resultados dos quais são tomadas decisões social e individualmente significativas, dá início a uma série de riscos e ameaças aos direitos humanos e liberdades tradicionais e à transparência e abertura de a atividade humana na era digital leva à violação dos direitos básicos de privacidade e liberdade de escolha. O artigo também destaca e considera duas tendências opostas no impacto da digitalização na instituição de direitos humanos: expandir o escopo e a lista de direitos, por um lado, e as violações massivas de direitos e estreitar a esfera real das oportunidades humanas, por outro .

**Palabras clave:** digitalização, inteligência artificial, direitos humanos, sistema de reconhecimento de imagem, segurança da informação.



### Introduction

The history of human civilization shows that technological progress and the development of the institution of human rights go hand in hand. There were shifts in worldview, ideological, value-normative systems at each new stage of technical, and, consequently, socio-economic development. Thus, the sphere of individual freedom of an individual expanded; new ideas about inalienable human rights, a fair and humane social order appeared; the list and scope of rights and freedoms required by society changed. Each historical stage brings new plots in the development of ideas about freedoms, rights and legitimate interests of a person, and expands the scope of claims within the framework of existing rights and freedoms. With the development of digitalization processes, a new round in the development of the human rights institution can be expected. The emergence of new digital rights and freedoms and a comprehensive doctrine of human rights adequate to the digital era of transformation of public relations is possible (Beyer, 2014; Finck & Moscon, 2019; Taylor, 2017). Digital rights are human rights and legal rights which enable people to access, use, create and publish digital media, or to access and use computers, other electronic devices and telecommunications networks. In particular, the term is concerned with the security and realization of established rights, such as the right to privacy and freedom of speech, in the context of digital technology, especially the Internet. The laws of many nations recognize the freedom to access the internet.

At present, it is impossible to limit ourselves only to the impact of the global network factor on economic, legal, political and other processes: the era of digitalization is transforming established legal, state and public institutions. This remark is fully applicable to the institution of human rights.

Before talking about various trends and directions of the mutual influence of digitalization and human rights as an institution and value, we would like to outline the problem field of the issue. In other words, we consider it useful to illustrate the points of contact of human rights and freedoms, on the one hand, and the implementation of breakthrough technologies (primarily digital, network and telecommunication technologies, artificial intelligence systems), on the other hand, using specific examples.

### Material and Methods

What are the concerns of researchers in this field?

The social threats of digitalization include (Khalin & Chernova, 2018; Khandii, 2019): unemployment; a fundamental change in the labour market and social architecture in general; pronounced and rapid stratification of society (economic, intellectual, and also physical and genetic in the future, which is

associated with the availability of the latest medical technologies to wealthy segments of the population); degradation of humanity (associated with a decrease in incentives for self-development in the conditions of ensuring basic physical needs and comfort through the automation of work and life, as well as generated by a decrease in the quality of education and the loss of the need for active intellectual development); exclusion from the social context (due to the loss of existing social institutions associated with the need for compulsory labour); loss of meaning in higher and/or vocational education.

### Results

Digital transparency of a person becomes the main problem with regard to the issue of protecting and realizing human rights in digital reality (Goldstein & Faxon, 2020). This problem has many manifestations and aspects.

Electronic document management, electronic government, and electronic medicine: all this requires uploading personal data to the network. Coupled with image and speech recognition technologies, all this makes a person "transparent" to subjects who have access to numerous machine data. Speech recognition technologies open up scope for wiretapping of telephone conversations and audio messages and, consequently, for violation of constitutional rights and freedoms. Image recognition technology, in particular, face recognition, makes it possible to track almost all human movements, at least within megacities equipped with a large number of video cameras. If we have the corresponding access, the comparison of data from official databases and from social networks makes it possible to identify a person's personality and invade their privacy.

We would like to give an example of the dangerous use of digital technologies without proper legal regulation and government control in the context of the impact of digitalization on human rights. It will be about the technology of image recognition, in particular, of human faces. At the moment, the technology of face recognition is actively used by the municipal administration of the Moscow City through CCTV cameras at the entrances. The declared goal is to search for criminals and help in the work of precinct and investigation.

A separate problem is ensuring the confidentiality of personal data when using AI, especially in the areas of medicine and labour law (access to medical and other personal data can give rise to discrimination against a person in labour relations and in employment). Regulating the use of AI technologies in these areas is a difficult task, since it is necessary to determine the balance of privacy and openness in a digital society, because, as P.M. Morkhat writes, "... excessive



confidentiality can also lead to negative consequences” (Morkhat, 2017).

*Technological unemployment.* The right to work requires special protection in the context of digitalization and the proliferation of artificial intelligence systems. Sociologists, philosophers, economists, lawyers and futurologists are frightened by the displacement of people from the labour market by robots. True, the tendency to expand the sphere of machine labour does not look threatening in the short term. But the prospect of the disappearance of many professions and a serious reorganization of the labour market as a whole is absolutely real. Experts from a Swiss nongovernmental organization “World Economic Forum” presented the Future of Jobs 2018 study, for which data was collected over nine months using online questionnaires (Which professions will disappear in the next four years). Industrial and financial companies from 20 countries were studied. According to the Future of Jobs 2018 report, by 2022, automation will destroy 75 million jobs and many familiar jobs will disappear. Robots are predicted to replace managers, secretaries, partially accountants, cashiers, factory workers and storekeepers. Machines will replace humans in the search, processing and transmission of information, project coordination, consulting and management.

True, according to experts, this should not lead to an increase in unemployment, since technological progress at the same time will create 130 million new jobs.

But now we are talking about this trend from the standpoint of private interests, not public ones. The situation stops looking so harmless if we look at the change in the labour market caused by total digitalization from a human rights perspective. The emergence of “new” jobs does not in any way solve the problem of employment of “old” workers who have been ousted from the market by machine labour. It is obvious that new professions, mainly of a technical orientation, await yesterday's schoolchildren, while digitalization is releasing the adult population with a “humanitarian” education from the labour market. As political scientists point out, “full-scale robotization of production can cause colossal imbalances between demand and supply in the labour market. This will lead to an increase in technological unemployment and make the labour of millions of workers unclaimed with depriving them of the opportunity to receive labour income (Malysheva, 2018).

Modern labour and employment legislation and the system of state guarantees created on its basis cannot solve the problem of technological unemployment (Johnstone et al., 2005; Kilpatrick, 2003). Realizing the problem, one must remember that from the standpoint of the institution of human rights, a person is primary; they are the value and their interests must

be protected. The system of retraining and employment in its current form cannot protect the interests of an individual, and to ensure that it maintains the quality of life and social status. The state controls the masses, organizes the labour and employment market. From the standpoint of public interest, the emergence of new jobs instead of the abolished ones solves the problem. But from the point of view of an individual, the problem is not solved.

One of the threats posed by digitalization in relation to human rights is an infringement on freedom of choice and the general quality of human life. There are no such rights in the constitution, but, in our opinion, they follow from the constitutional legal order. Freedom of choice is an essential principle of law specifying the measure of freedom and responsibility for an individual in society. Quality of life is the goal of legal policy, the priority of legal regulation, a category that reflects the symbiosis of material, political, legal, and organizational capabilities of a person in society. We want to say that the unregulated use of modern technologies, including digital ones, does not always violate specific human rights written in the articles of the Constitution. It often limits the freedom of choice and reduces the quality of life of a person as a whole. In other words, there is a limitation of a person's capabilities in everyday life, which is not separately regulated by the norms of law.

A networked society or an information society is an absolutely controlled society, a society of lack of freedom, which is a natural result of the development of technologies for collecting and processing information. According to one of the speakers at the Moscow Legal Forum, it is a high-tech version of serfdom. “Programmable society” is the term by Lazarev proposed instead of the currently used post-industrial society, or the information society (Butler & Cox, 1974; Ulikhin et al., 2018; Yang et al., 2019).

The essence of all these terms boils down to emphasizing the fact that a person loses its individuality and freedom of choice. Obviously, the process of total “digitization” of a person can only be opposed through the values and ideologies of appealing to human rights.

Russian digitalization is very difficult because officials do not understand the meaning of the digitalization process. According to D. Petrov, General Director of Komfortel, there is a lot of talk about digitalization in connection with the message from the head of state, but it is often replaced by automation or digitalization of information from paper.

This refers to the trend of “digitalization for the sake of digitalization”, which is a terrible product of the Russian bureaucracy and technological progress. This trend is expressed in attempts to automate, digitize, computerize and informatize as many areas as possible and as soon as possible, regardless of the



feasibility, readiness of public consciousness and even the availability of infrastructure.

According to some experts, the practice of digitalization of many processes in Russia makes their efficiency zero. "For example, during the construction of a new quarter: using fashionable Big Data and AI, wearing VR glasses, but at the same time connecting residential buildings with the city with the same path along the highway," V. Pronin, Leading Systems Engineer of the Digital Design company, pointed out in his speech at the V Digital City RBC Forum. – The same is in medicine: we use ultra-modern means of communication, analytics, and mobile applications, but leave standard diagnoses for all occasions and prescribe homeopathy for our thyroid glands."

Real-life and non-virtual Russian citizens, whose rights are being infringed, suffer as a result of digitalization for the sake of its appearance. So, instead of making life easier for citizens, the automated systems being introduced are often not debugged and are time-consuming. Electronic queues at the post office cannot cope with a large flow of people; they often fail, confuse the queue, and distract operators. It seems that everyone is familiar with the situation when the introduction of electronic document management and the establishment of its work cause disruptions in the functioning of state institutions. Examples were when the salary in a well-known educational institution in the Far East in 2010 was not paid on time, since the accrual program was updated or situations when the car fine was paid late and was doubled again after its payment from the electronic card was performed. Thus, the payment was actually doubled due to an error in the system. Such systems rarely work well right away, not allowing issues to be resolved quickly.

To summarize, we can say that the main offensive factor today is the practice of introducing digital technologies. We can say the following about a significant part of digital innovations that are being aggressively introduced today in government structures and big business: it works frankly badly; it is not provided with the support of specialists and mechanisms for eliminating errors.

Requirements for digital law and innovative legal regulation are generally not developed by lawyers and are often developed without lawyers. In these conditions, it is very easy to throw out the baby with water: the centuries-old value-regulatory baggage of jurisprudence may be discarded simply for the sake of the charm of progress, and also because the contours of regulation are determined by people with ordinary legal consciousness, and also by technicians who are inclined to equalize the regulation of behaviour and program algorithms and to ignore the ethical, axiological and sociocultural implications of the law. In connection with the above, human rights as an

axiological and legal institution are in a special risk zone.

Speaking about the impact of digitalization on the human rights institution, we believe it is necessary to highlight two contradictory trends in such an impact.

On the one hand, the impact of digitalization creates an expansion of the scope of rights in terms of the possibilities for their implementation. In the digital age, the right to information, freedom of speech, and freedom of the media are being re-read.

Great opportunities, while little used in our country, are provided by digitalization for the implementation of political rights. The right to appeal, electoral rights, the right to participate in the management of state affairs in the context of the development of network and electronic technologies are becoming more real and closer to people. The Internet and the associated opportunities for the prompt exchange of information make us look at voter information, election campaigning, and political activity of citizens in a new way.

Individuals receive additional opportunities in terms of realizing freedom of creativity and teaching. The use of the right to access to justice is made easier by electronic filing services and the ability to track the progress of the case on court websites on the Internet.

A separate line within this trend is the need to expand the list of human rights in the context of the digital age. The group of digital rights includes the right to be forgotten on the Internet; the right to independently determine the fate and limits of the use of personal information posted on the network; the right to privacy in digital life (protection from intrusive advertising; protection from geolocation services forcibly installed by various applications; requirements to authorize and leave personal data on commercial sites, etc.); the right to get acquainted with your digital dossier (information that IT giants and Internet providers collect on a person); the right to the quality of information.

On the other hand, the spread of the same technologies gives rise to massive violations of human rights and freedoms, expands the opportunities for encroachment on human rights, and turns into a narrowing of the real volume of rights realized and guaranteed by the state.

Articles 23 and 24 of the Constitution of the Russian Federation are especially affected in this sense. Privacy; confidentiality of correspondence and other messages; the right to protection of honour and good name; the prohibition on the collection, storage, use and dissemination of information about a person's private life without his or her consent: all these provisions of the Constitution are not provided with any guarantees at the current stage of the digital era.

The spread of electronic and telecommunication technologies has turned information about a person's private life into a bargaining chip. And the state is powerless in this situation, and we would like to hope



that only for now. The massive introduction of face recognition technology into the life of a megalopolis infringes on privacy, personal and family secrets, and also poorly correlates with the prohibition on collecting information about person's private life without their consent (part 1 of article 24 of the Constitution). The possibilities of the network in terms of access to information give rise to a problem with the provision of Part 3 of Art. 17 of the Constitution: "The exercise of human and civil rights and freedoms must not violate the rights and freedoms of others."

The issue of protecting and guaranteeing human rights in the context of digitalization turns into another complex question: how to regulate the Internet? Technological, legal and ideological models are needed here.

The example of China and other countries proves that technically strict regulation and limitation of human capabilities on the Internet is possible. It's another matter whether this is necessary; what are the limits of state control and personal freedom; what legal and political mechanisms should accompany this regulation? In fact, the protection of human rights in the era of digitalization is hampered by the question of Internet regulation models and the package of laws that implement such regulation.

Another aspect of the problem, which is rarely discussed in the legal and political literature, is associated with automated processes of classification, differentiation, ranking and other procedures that are carried out by algorithmic digital systems. The digital technologies used, the monitoring of various human activities, collecting information on autonomous digital platforms: all this can significantly limit the structure of social opportunities and narrow the space of freedom of choice, as well as restrict the freedom of individual decisions and the choice of a development trajectory (for example, through the contextual imposition of a certain form and lifestyle through social messengers, social networks, Internet communities, etc.).

Moreover, the collected data (Big data) using various autonomous algorithms that are hidden and inaccessible for individual or public control, and often for legal regulation (Tikhomirov & Nanba, 2019) differentiate and classify acting actors placing them in different categories, structuring them according to their reliability (for example, creditworthiness). (For example, Frank Pasquale designates these algorithmic systems as "black boxes" that hide the mechanism and criteria for differentiating and classifying citizens. The complete lack of transparency in the functioning of the latter does not allow us to assess to what extent these algorithms restrict our rights and freedoms, and most importantly, that this secrecy does not make it possible to regulate the process and assess how algorithmic decisions are consistent with fundamental rights and values that normalize modern social interaction)

(Pasquale, 2015; Ranchordás, 2016) or loyalty (for example, setting an index of the criminality of a person), (Currently, various countries are developing complex and diverse systems based on artificial intelligence technologies that predict offences, the level of criminality, mark individual subjects of public life as potentially dangerous, etc. For example, the analytical software CEG (Jacksonville, Alexandria, Memphis and Detroit, USA). Thereby violating fundamental human rights (for example, for equal access and equal opportunities, the presumption of innocence, freedom of movement, etc.).

In this regard, the words of Adam Greenfield, a researcher at the Centre for the Study of Cities at the London School of Economics, sound very symptomatic and diagnostic: "One of the most frightening aspects of the world we are on the verge of is that we will never know the reasons for many things that happen to us in life ... we are surrounded by invisible but powerful forces that follow us through devices scattered throughout our home, even placed on our bodies, and these forces are busily collecting detailed dossiers on all of us. They pass on the content of these dossiers to unknown and unaccountable intermediaries who use everything to frame the possibilities that unfold before us, or worse, not. We will be hired or not hired, and we will be presented or not provided loans, given or not given the opportunity to meet our love, provide or not provide medical services. And the worst thing is that until the very day of our death, we never know what action or inaction on our part led to any of these outcomes" (Greenfield, 2017).

Indeed, the implementation and operation of these algorithms are becoming a new challenge to the social and legal organization of society. Today, not a single public institution has real mechanisms for monitoring and inspecting the operation of algorithms, which are entrusted with fundamentally important tasks for assessing certain groups of citizens or the population as a whole. In general, quite often the developers of these systems cannot quite clearly answer the question of how the algorithm based on a huge amount of metadata forms certain results (automated decisions) that are incorporated into the process of making socially significant management decisions. There are no real mechanisms to control the functioning of the latter even in the "right to explanation" and "right to defence" provided in a number of European countries against the negative consequences of automated decisions(:

<https://arxiv.org/abs/1606.08813>).

Moreover, in matters of the opacity of algorithms and the secrecy of the functioning of various algorithmic systems, the government of many countries in implementing the practice of shifting the burden of responsibility onto a specific person, i.e. they "tend to identify risks and then present them as a matter of



personal responsibility or moral failure rather than as structural and systemic problems" (Greenfield, 2017). It is obvious that this area is currently outside the legal space, within which shadow practices of collecting and registering information are developing, which can be used in various forms (Petrovich et al., 2019). For example, as a conscious or unconscious restriction of a person's freedom of choice, various forms of abuse of subjective rights, etc. This is one of the riskiest areas, the regulation of which should be implemented by the entire system of social and normative regulation (values, traditions, customs, law, etc.).

### Conclusion

There is a clear imbalance in the interaction of human rights and digitalization in modern society. Speaking about the impact of digitalization on the human rights institution, we can describe in some detail what this impact is and what its consequences are today. It would be logical to build an inverse relationship: the impact of human rights on digitalization. But there is almost nothing to say here. This direction of influence remains in the area of the due. This is what humanists would like to see and what should be done to preserve human rights as an achievement of civilization.

Unfortunately, such an impact is in the sphere of hypothetical reasoning soon. Legally, the problem also lies in the fact that the advancement of technologies is carried out, for the most part, by political and legal acts, strategic planning documents. These acts do not have a clear legal nature and legal force defined in the law. The promotion of these documents is carried out by political and administrative resources, and not by legal procedures. Human rights in our state are protected by federal laws. There are no laws on new technologies. But there are strategies, concepts, doctrines and many bylaws aimed at their implementation. We say that the legal system of Russia today cannot offer a legal mechanism for the protection of human rights in the context of a technological revolution. Here we are not talking about what is called a mechanism for protecting human rights in textbooks on constitutional law. This refers to the technical and legal aspect and a general gap in the regulation of the legal regulation process. The current situation makes it difficult to protect human rights, depriving lawyers of their natural legal means of such protection.

In the context of the digital technological revolution, the constitutionalization of an updated legal order is required, taking into account new threats to the institution of human rights and constitutional values.

### References

Beyer, J. L. (2014). The emergence of a freedom of information movement: Anonymity,

- WikiLeaks, the Pirate Party, and Iceland. *Journal of Computer-Mediated Communication*, 19(2), 141–154.
- Butler, D., & Cox, G. (1974). The programmable society and the individual as a unit of data. *Long Range Planning*, 7(5), 43–46.
- Finck, M., & Moscon, V. (2019). Copyright Law on Blockchains: Between New Forms of Rights Administration and Digital Rights Management 2.0. *IIC-International Review of Intellectual Property and Competition Law*, 50(1), 77–108.
- Goldstein, J. E., & Faxon, H. O. (2020). New data infrastructures for environmental monitoring in Myanmar: Is digital transparency good for governance? *Environment and Planning E: Nature and Space*, 2514848620943892.
- Greenfield, A. (2017). *Radical technologies: The design of everyday life*. Verso Books.
- Johnstone, R., Quinlan, M., & Walters, D. (2005). Statutory occupational health and safety workplace arrangements for the modern labour market. *The Journal of Industrial Relations*, 47(1), 93–116.
- Khalin, V. G., & Chernova, G. V. (2018). Digitalization and its impact on the Russian economy and society: Advantages, challenges, threats and risks. *Administrative Consulting*.
- Khandii, O. (2019). Social threats in the digitalization of economy and society. *SHS Web of Conferences*, 67, 06023.
- Kilpatrick, C. (2003). Has New Labour reconfigured employment legislation? *Industrial Law Journal*, 32(3), 135–163.
- Malysheva, G. A. (2018). On the Socio-Political Challenges and Risks of the Digitalization of Russian Society. *Power*, 26(1), 40–46.
- Morkhat, P. M. (2017). Artificial intelligence: Legal view. *M.: BukiVedi*, 257.
- Pasquale, F. (2015). *The black box society*. Harvard University Press.
- Petrovich, B. P., Yurievich, M. A., Yurievich, M. A., Vyacheslavovich, S. O., & Nikolaevna, G. E. (2019). Human Rights and Freedoms in the Digital Era: Problems and Perspectives of Their Establishment in the Eurasian Space. *J. Pol. & L.*, 12, 93.
- Ranchordás, S. (2016). *The Black Box Society: The Secret Algorithms That Control Money and Information* by Frank Pasquale Cambridge, MA: Harvard University Press, 2015, 320 pp.€ 31.50. *European Journal of Risk Regulation*, 7(2), 460–462.
- Taylor, L. (2017). What is data justice? The case for connecting digital rights and freedoms globally. *Big Data & Society*, 4(2), 2053951717736335.



- Tikhomirov, I. A., & Nanba, S. B. (2019). *Legal concept of robotization*. Moscow, Prospekt Publ.(In Russian).
- Ulikhin, V., Shkuropat, D., & Krasnyuk, P. (2018). Culture Of The Information Society: Characteristics And Trends Of Development. In *Russian Economy: Goals, Challenges And Achievements* (pp. 253–255).
- Yang, X., Liu, J., & Li, X. (2019). Research and Analysis of Blockchain Data. *Journal of Physics: Conference Series*, 1237(2), 022084.